

What I claim is:

1. A microwave transition comprising: a waveguide of rectangular section, said waveguide having a narrow wall and a broad wall; a first conductor extending through said narrow wall; and a transition plate attached with said first conductor within said waveguide, wherein said transition plate is aligned centrally of said waveguide and extends lengthwise in contact with an internal surface of said broad wall, and wherein the height of said transition plate is greater adjacent said conductor than away from said conductor.
2. A microwave transition according to Claim 1, wherein said transition plate is stepped to a reduced height away from said conductor.
3. A microwave transition according to Claim 2, wherein said transition plate provides a quarter wave section.
4. A microwave transition according to Claim 1, wherein said transition plate tapers to a reduced height away from said first conductor.
5. A microwave transition according to Claim 1, wherein a cylindrical outer conductor extends around a part of the length of said first conductor.
6. A microwave transition according to Claim 5, including a dielectric member located between said first conductor and said outer conductor.

7. A microwave transition according to Claim 1, wherein said first conductor comprises two parts arranged axially of one another, and wherein a dielectric material is supported between said two parts of said first conductor in a hole in said narrow wall.
8. A microwave transition according to Claim 1, wherein said first conductor has a portion extending parallel to said narrow wall.
9. A microwave transition comprising: a waveguide of rectangular section, said waveguide having a narrow wall and a broad wall; a first conductor extending through said narrow wall; and a transition plate attached with said first conductor within said waveguide, wherein said transition plate has a flat edge and a stepped edge opposite said flat edge, wherein said plate is aligned centrally of said waveguide and extends lengthwise with said flat edge in contact with an internal surface of said broad wall, and wherein the height of said transition plate steps down away from said conductor.
10. A microwave transition comprising: a waveguide of rectangular section, said waveguide having a narrow wall and a broad wall; a first conductor extending through said narrow wall and having a right-angle bend externally of the waveguide such that a free end of the conductor extends parallel with said narrow wall; and a transition plate attached with said first conductor within said waveguide, wherein said transition plate is aligned centrally of said waveguide and extends lengthwise in contact with an internal surface of said broad wall, and wherein the height of said transition plate is greater adjacent said conductor than away from said conductor.

11. A microwave antenna including a transition comprising: a waveguide of rectangular section, said waveguide having a narrow wall and a broad wall; a first conductor extending through said narrow wall; and a transition plate attached with said first conductor within said waveguide, wherein said transition plate is aligned centrally of said waveguide and extends lengthwise in contact with an internal surface of said broad wall, and wherein the height of said transition plate is greater adjacent said conductor than away from said conductor.
12. A microwave antenna according to Claim 11 including a slotted wall opposite said narrow wall and a polarisation grid disposed adjacent said slotted wall externally of said waveguide.